



# SCHOOLS BRIEF

## State and market

People are quick to assume that “market failure” justifies action by the government. This final brief in our series on economic fallacies argues for a strong presumption in favour of markets—not because they always work perfectly (they never do) but because the alternative is usually worse

ACCORDING to the central deduction of economic theory, under certain conditions markets allocate resources efficiently. “Efficiency” has a special meaning in this context. The theory says that markets will produce an outcome such that, given the economy’s scarce resources, it is impossible to make anybody better-off without making somebody else worse-off.

Economic theory, in other words, offers a proof of Adam Smith’s big idea. In a market economy, if certain conditions are met, an invisible hand guides countless apparently uncoordinated individuals to a result that is, in one plausible sense, the best that can be done.

In rich countries, markets are too familiar to attract attention. Yet a certain awe is appropriate. When Soviet planners visited a vegetable market in London during the early days of *perestroika*, they were impressed to find no queues, shortages, or mountains of spoiled and unwanted vegetables. They took their hosts aside and said: “We understand, you have to say it’s all done by supply and demand. But can’t you tell us what’s really going on? Where are your planners, and what are their methods?”

The essence of the market mechanism is indeed captured by the supply-and-demand diagram shown in chart 1. The supply curve measures the cost to sellers, at any level of output, of selling one more unit of their good. As output grows, the law of diminishing returns forces this extra (or marginal) cost higher, so the supply curve slopes upwards. In the same way, the demand curve measures the benefit to consumers of consuming one more unit. As consumption grows, the benefit from extra consumption falls, so the demand curve slopes downwards.

At the place where the curves cross, a price is set such that demand equals supply. There, and

only there, the benefit from consuming one more unit exactly matches the cost of producing it. If output were less, the benefit from consuming more would exceed the cost of producing it. If output were higher, the cost of producing the extra units would exceed the extra benefits. So the point where supply equals demand is “efficient”.

The shaded area in chart 2 shows the “surplus” created by the market. The upper part is the consumers’ surplus: the benefit from consumption (ie, the total area under the demand curve) less what consumers have to pay for it. In the same way, the lower part measures the producers’ surplus: revenues received, less the cost of production (the area under the supply curve).

This gain in welfare is at its greatest if consumption and production happen where the lines cross. If, for some reason, consumption and production are less than that, the surplus is smaller and the economy suffers

what economists call a dead-weight loss, as shown in chart 3.

If production and consumption are more than the efficient amount, the same is true. Producers’ surplus is smaller because the extra output has cost more to make than it brings in revenues; consumers’ surplus is reduced because the extra consumption has cost buyers more than the benefits it brings. Again, as shown in chart 4, the economy suffers a dead-weight loss.

### Fine on paper

However, the conditions for market efficiency are extremely demanding—far too demanding ever to be met in the real world. The theory requires “perfect competition”: there must be many buyers and sellers; goods from competing suppliers must be indistinguishable; buyers and sellers must be fully informed; and markets must be complete—that is, there must be markets not just for bread here and now, but for bread in any state of the world. (What is the price today for a loaf to be delivered in Timbuktu on the second Tuesday in December 2014 if it rains?)

In other words, market failure is pervasive. It comes in four main varieties:

• **Monopoly.** By reducing his sales, a monopolist can drive up the price of his good. His sales will fall but his profits will rise. Consumption and production are less than the efficient amount, causing a deadweight

loss in welfare.

• **Public goods.** Some goods cannot be supplied by markets. If you refuse to pay for a new coat, the seller will refuse to supply you. If you refuse to pay for national defence, the “good” cannot easily be withheld. You might be tempted to let others pay. The same reasoning applies to other “non-excludable” goods such as law and order, clean air, and so on. Since private sellers cannot expect to recover the costs of producing such goods, they will fail to supply them.

• **Externalities.** Making some goods causes pollution: the cost is borne by people with no say in deciding how much to produce. Consuming some goods (education, anti-lock brakes) spreads benefits beyond the buyer; again, this will be ignored when the market decides how much to produce. In the case of “good” externalities, markets will supply too little; in the case of “bads”, too much.

• **Information.** In some ways a special kind of externality, this deserves to be mentioned separately because of the emphasis placed upon it in recent economic theory. To see why information matters, consider the market for used cars. A buyer, lacking reliable information, may see the price as providing clues about a car’s condition. This puts sellers in a quandary: if they cut prices, they may only convince people that their cars are rubbish.

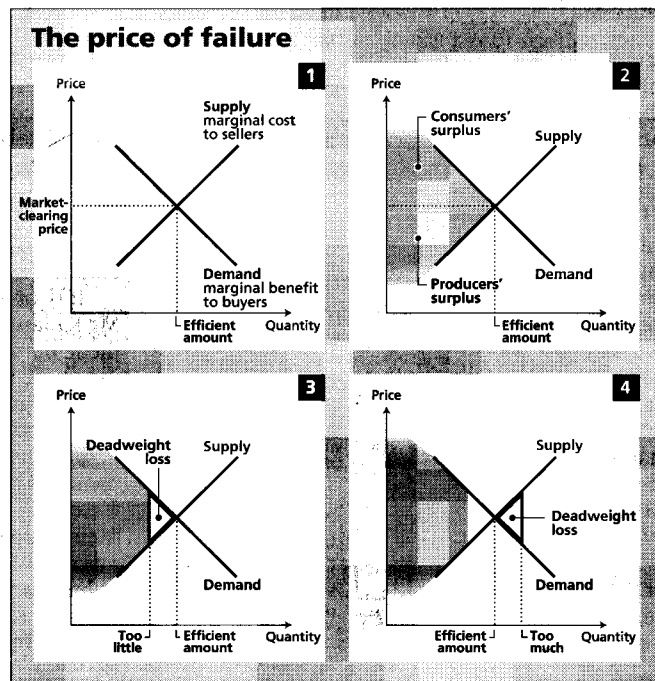
The labour market, many economists believe, is another such “market for lemons”. This may help to explain why it is so difficult for the unemployed to price themselves into work.

### How harmful?

When markets fail, there is a case for intervention. But two questions need to be answered first. How much does market failure matter in practice? And can governments put the failure right? The rest of this article deals with the first question. For a brief response to the second, see the box on the next page.

Markets often correct their own failures. In other cases, an apparent failure does nobody any harm. In general, market failure matters less in practice than is often supposed.

Monopoly, for instance, may seem to preclude an efficient market. This is wrong. The mere fact of monopoly does not estab-



ish that any economic harm is being done. If a monopoly is protected from would-be competitors by high barriers to entry, it can raise its prices and earn excessive profits. If that happens, the monopoly is undeniably harmful. But if barriers to entry are low, lack of actual (as opposed to potential) competitors does not prove that the monopoly is damaging: the threat of competition may be enough to make it behave as though it were a competitive firm.

That is why economists are no longer so interested in concentration ratios (the output of an industry's biggest firm or firms as a proportion of the industry's total output). Judging whether markets are "contestable"—that is, whether barriers to entry are high—is thought to be more important.

Many economists would accept that Microsoft, for instance, is a near-monopolist in some parts of the personal-computer software business—yet would argue that the firm is doing no harm to consumers because its markets remain highly contestable. Because of that persistent threat of competition, the company prices its products keenly. In this and in other ways it behaves as though it were a smaller firm in a competitive market.

Suppose, on the other hand, that a "natural monopoly" (a firm not subject to the law of diminishing returns, whose costs fall indefinitely as it increases its output) is successfully collecting excessive profits. Then would-be competitors would spare no effort to make the market contestable, through innovation or by other means.

Telecommunications was once considered a natural monopoly. Today, thanks to new technology and deregulation, it is an intensely competitive business—and in many countries would be more so if not for remaining government restrictions. Economists used to see natural monopolies wherever they looked. Now, thanks mainly to innovation—inspired chiefly by the private pursuit of profit—these beasts are sighted much less often.

Economists have also changed their thinking on public goods. Almost all economists accept that there are such things: national defence and law and remain the most straightforward examples. But it was once

taken for granted that many other products also qualify (if not by being pure public goods, at least by having some of the relevant characteristics). This is no longer so.

The classical example of a public good is a lighthouse. Its services are both non-excludable and "non-rivalrous in consumption", meaning that extra ships can consume its output without the existing users having to consume less. This implies that lighthouses are a pure public good: only the state can provide them. Such a neat example, cited by economists from John Stuart Mill to Paul Samuelson—yet it is at odds with the facts.

As Ronald Coase pointed out in a celebrated paper, from the 17th century many of Britain's lighthouses were privately built and run. Payment to cover costs (and provide a profit) was extracted through fees collected in local ports. The government's role was confined to authorising this collection, exactly as a modern government might provide for a private road-builder to collect a toll.

On the face of it, television broadcasting is another pure public good—again, both non-excludable and non-rivalrous in consumption. Now, thanks to technology, it is straightfor-

wardly excludable: satellite broadcasters collect a subscription, and in return provide a card that unscrambles their signal. With cable and pay-per-view, excludability works with even finer discrimination. And these market-strengthening innovations were not necessary for privately provided television to succeed, despite its public-good appearance. Non-excludable television was and is financed through advertising (another kind of innovation).

#### Fable of the bees

The same Ronald Coase who attacked the lighthouse myth is better known (and won a Nobel prize) for his work on externalities—the third species of market failure discussed earlier. He argued that, so long as property rights are clearly established, externalities will not cause an inefficient allocation of resources. In fact, few economists would agree: in many cases, unavoidably high costs will prevent the necessary transactions from taking place. Even so, Mr Coase's insight was fruitful. Markets find ways to take account of externalities—ways to "internalise" them, as economists say—more often than you might think.

Bees are to externalities as lighthouses are to public goods.

## Imperfect government

**T**HE case for intervention in response to market failure requires not only that the failure is damaging but also that governments can do something about it. Just as the dangers of market failure are often exaggerated, so too are the skills of government. Intervention must overcome three formidable difficulties: the tendency of regulated firms to "capture" their regulators, weak incentives for efficiency within the public sector, and missing information (where markets lack it, governments are likely to lack it as well).

The regulation of monopolies is a telling example of capture. Most monopolies or near-monopolies are supported rather than curbed by regulation. For instance, the licensed professions—doctors, lawyers and so on—are among the world's best-defended monopolies. Rather than merely certifying the skills of people in such occupations, most governments make it illegal for unlicensed sellers to practise. The resulting monopoly is typically run by the licence-holders themselves.

In industry, too, regulation that begins as an attempt to control a monopoly often ends up defending it. America's Interstate Commerce Commission began as an agency to regulate railways, which arguably had monopoly power. In due course it extended its reach to trucking—partly to help the railways survive. In much of Europe, regulation of telecommunications has lately changed in the same way: from controlling to protecting.

The record of intervention is poor. Sometimes there is no choice, but history suggests that the burden of proof should lie with those who would extend the government's role.

For years they served as a favourite textbook example. Bee-keepers are not rewarded for the pollination services they provide to nearby plant-growers, so they and their bees must be inefficiently few in number. Again, however, the world proved cleverer than the textbooks. Steven Cheung studied the apple-growers of Washington state and discovered a long history of contracts between growers and bee-keepers. The supposed market failure had been effectively—and privately—dealt with.

As for lack of information, the final main source of market failure discussed earlier, here too economists have discovered all manner of private remedies. Recall the used-car example. An easy way round the difficulty is to buy from a seller with a good reputation (one worth protecting), or who offers guarantees. In ways such as this, the information gap can often be filled, albeit at a cost, and sometimes only partially.

More broadly, the new thinking on information in economics sees the institutions of capitalism largely as attempts to solve this very problem. The fact that firms, banks and other institutions exist, and are organised as they are, reflects society's efforts to make best use of scarce information.

Even on economic grounds (never mind other considerations), there is no tidy answer to the question of where the boundary between state and market should lie. Markets do fail—because of monopoly, public goods, externalities, lack of information and for other reasons. But, more than critics allow, markets find ways to mitigate the harm—and that is a task at which governments have often been strikingly unsuccessful.

All in all, a strong presumption in favour of markets seems wise. This is not because classical economic theory says so, but because experience seems to agree.

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